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REMARKS

This response is intended as a full and complete response to the non-final Office Action mailed October 27, 2003. In the Action, the Examiner notes that claims 1-17 are pending, of which claims 1-14, 16 and 17 stand rejected, and claim 15 is objected to. By this amendment, claims 1 and 10 are amended and claims 2-9 and 11-17 continue unamended.

In view of the following discussion, the applicants submit that none of the claims now pending in the application are indefinite, anticipated or obvious under the respective provisions of 35 U.S.C. §§112, 102 and 103. Thus, the applicants believe that all of these claims are now in allowable form.

OBJECTION

The Examiner has objected to claim 10 because of the following informalities: "Line 9 of claim 10 refers to said navigatgions information, but should refer to said navigational information." Applicants have amended claim 10 as suggested by the Examiner to correct the obvious typographical error. Applicants respectfully request that the Examiner's objection be withdrawn.

ALLOWABLE SUBJECT MATTER

The Examiner has objected to claim 15 as being dependent upon a rejected base claim. The Examiner concludes that this claim would be allowable subject matter if rewritten in independent form including all the limitations of the base claim and any intervening claims.

The Applicants thank the Examiner for indicating the allowable subject matter with respect to claim 15. However, in view of the arguments set forth herein, the Applicants believe base claim 1, as amended, (and all intervening claims) are in allowable form and, as such, the dependent claims 11-17, as they stand, are therefore in allowable condition. Therefore, the Applicants respectfully request that the foregoing objections to claim 15 be withdrawn.

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REJECTIONS

1. 35 U.S.C. §112

a. Claims 1 and 10

The Examiner has rejected claims 1 and 10 under 35 U.S.C. §112, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants respectfully traverse the rejection.

The Applicants have amended independent claims 1 and 10 to further clarify the features the Applicants' consider as being inventive. In particular, claim 1 (and similarly claim 10), as amended, recites:

"In an information distribution system providing content data and asset data comprising navigational information to at least one subscriber, apparatus comprising:

a NULL packet inserter, for inserting NULL transport packets within a transport stream including content packets; and

a transport processor, for replacing at least some of said NULL packets with asset packets comprising said navigational information comprising at least one of bitmaps and control scripts, said navigational assets associated with said content packets to produce a composite transport stream including content packets and asset packets having said navigational information." (emphasis added).

The Applicants have defined their invention as including at least one of bitmaps and controls scripts, where the navigational assets are associated with said content packets to produce a modified transport stream including content packets and asset packets having said navigational information. Thus, claim clearly recites that the asset packets comprise navigational information that is associated with the content packets.

As such, the applicants submit that independent claim 1 is not indefinite and fully satisfies the requirements of 35 U.S.C. §112 and is patentable thereunder. Furthermore, independent claim 10 recites similar features as in independent claim 1. As such and at least for the same reasons as discussed above, the applicant submits that independent claim 10 is not indefinite and fully satisfies requirements of 35 U.S.C. §112 and is patentable thereunder. Therefore, the Applicants respectfully request that the rejections be withdrawn.

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2. 35 U.S.C. §102

a. Claims 1-4, 7-11, 14 and 16

The Examiner has rejected claims 1-4, 7-11, 14 and 16 under 35 U.S.C. §102(b) as being anticipated by Norizuki et al. (U.S. Patent No. 5,570,361, issued October 29, 1996, hereinafter "Norizuki"). The applicants respectfully traverse the rejection.

The Applicants have amended Independent claim 1 to recite features that the applicants' consider as being inventive. In particular, independent claim 1 (and similarly independent claim 10) recites:

"In an information distribution system providing content data and asset data comprising navigational information to at least one subscriber, apparatus comprising:

a NULL packet inserter, for inserting NULL transport packets within a transport stream including content packets; and

a transport processor, for replacing at least some of said NULL packets with asset packets comprising said navigational information comprising at least one of bitmaps and control scripts, said navigational assets associated with said content packets to produce a composite transport stream including content packets and asset packets having said navigational information." (emphasis added).

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984)(citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 U.S.P.Q. 193 (Fed. Cir. 1983)) (emphasis added). The Norizuki reference fails to disclose each and every element of the claimed invention, as arranged in the claim.

In particular, the Norizuki reference discloses an apparatus and method for ATM traffic supervisory control wherein an idle cell or an administrative cell is used for the traffic control. Specifically, idle cells are inserted into time positions, where user information cells do not exist on a transmission line. A cell-transmitting unit receives a user information cell sent from an AAL (ATM Adaptation Layer) unit 163 and sends the cell to the transmitting switch 177. When a user-information cell sent from the AAL unit does not use all of the total bandwidth of the cell-transmitting unit, the idle cell producing unit produces and sends an idle cell according to the transfer timing provided

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by the idle cell transferring unit. (See Norizuki, col. 1, lines 12-17, col.8, lines 28-40, and FIGS. 6 and 11). However, nowhere in the Norizuki reference is there any teaching or suggestion of "for replacing at least some of said NULL packets with asset packets comprising said navigational information comprising at least one of bitmaps and control scripts, said navigational assets associated with said content packets to produce a modified transport stream including content packets and asset packets having said navigational information."

By contrast, the applicants' invention associates asset packets, which comprise navigational information having at least one of bitmaps and control scripts, with the content packets. NULL packets that are inserted with the content packets are replaced with the asset packet to form a composite transport stream. This transport stream includes the content packets, as well as the asset packets containing the navigational information, which include at least one of bitmaps and control scripts.

The Examiner contends that the Norizuki reference discloses replacing of the at least some of the NULL packets with asset packets comprising said navigational information associated with said content packets. That is, the Examiner contends that "the transport information contains information about the path of connection, and thus provides navigational information." Specifically, "the ATM switch 331 maps out the parameters of traffic information in an information field 303A of an idle cell 303 and then sends out the idle cell. In contrast to this, in the case that the ATM switch unit 332 receives the idle cell 303 described above, the ATM switch unit 332 temporally stores the information field 303A of the idle cell 303 and then provides the information field 303A of the idle cell to the control unit 334. The control unit 334 investigates the contents of the information field 303A of the idle cell 303, and thereby recognizes the network conditions. In accordance with the network conditions, the control unit 334 controls the ATM switch unit 332, and thereby the ATM switch unit 332 starts or stops the traffic control operation. Further, the ATM switch unit 332 may map the received traffic information to an information field 303'A of a new idle cell 303' and send the new idle cell 303' to other opposed nodes (see, Norizuki, col. 15, lines 29-45).

The applicants respectfully disagree that the alleged navigational information of the Norizuki reference is the same as the navigational information recited by the applicants in claims 1 and 10. In particular, the applicants have defined the navigator asset data as including at least one of bitmaps and navigational controls scripts. As a set top box user is "navigating," the set top box extracts the asset data from the

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transport stream and uses that data to provide bitmap overlays on top of the MPEG content. The control data within the assets is used to define the layout of the stream and to take actions based on viewer input (see, applicants' specification, page 2, line 3-11).

More specifically, session control commands, such as navigation commands, are implemented by the session controller 145 with the set top terminal 136. Each command is implemented by the execution of central scripts by the set top terminal 136. The central scripts are transmitted to the set top terminal 136 (via the FATC) within the asset data in response to requests transmitted by the set top terminal 136 (via the RDC). It is noted that each control script includes links to other control scripts stored at the IIDS head end 102B. In this manner, set top terminal memory is conserved. The control scripts control both information sessions, such as the presentation of video to the television screen, and navigator functions, such as menus facilitating selection of a video program. The graphical data and other asset data used to provide the user interface at the set top terminal 136 comprises asset data such as navigator asset data that is processed by the service provider equipment 102 of the present invention (see, applicants' specification, page 9, lines 10-23). Accordingly, the applicants' invention inserts navigational assets that are used for displaying program information to a subscriber such as menus facilitating selection of a video program.

By contrast, the alleged navigational assets in the Norizuki reference pertain to routing packets from a source node to a destination node. That is, the traffic information of the Norizuki reference has nothing to do with facilitating control and presentation of a navigational screen, which comprises menus for selecting various programs. Accordingly, the Norizuki reference fails to teach each and every element of the claimed invention, as arranged in the claim, since the Norizuki reference fails to teach "a transport processor, for replacing at least some of said NULL packets with asset packets comprising said navigational information comprising at least one of bitmaps and control scripts, said navigational assets associated with said content packets to produce a composite transport stream including content packets and asset packets having said navigational information."

As such, the applicants submit that independent claim 1 is not anticipated and fully satisfies the requirements of 35 U.S.C. §102 and is patentable thereunder. Furthermore, independent claim 10 recites similar features as in independent claim 1. As such and at least for the same reasons as discussed above, the applicant submits that independent claim 10 is not anticipated and fully satisfies requirements of 35

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U.S.C. §102 and is patentable thereunder. Moreover, claims 2-4, 7-9, 11, 14 and 16, respectfully depend from either independent claims 1 and 10 and recite additional features thereof. As such, and at least for the same reasons as discussed above, the applicants submit that these dependent claims are also not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder. Therefore, the applicants respectfully request that the rejections be withdrawn.

3. 35 U.S.C. §103

a. Claims 5 and 17

The Examiner has rejected claims 5 and 17 under 35 U.S.C. §103 as being obvious and unpatentable over Norizuki in view of LaJoie et al. (U.S. Patent No. 5,850,218, Issued December 15, 1998, hereinafter "LaJoie"). The applicants respectfully traverse the rejection.

Claim 5 depends from independent claim 1, and recites in part:

"a transport processor, for replacing at least some of said NULL packets with asset packets comprising said navigational information comprising at least one of bitmaps and control scripts, said navigational assets associated with said content packets to produce a composite transport stream including content packets and asset packets having said navigational information." (emphasis added).

Similarly, claim 17 depends from Independent claim 17, and recites in part:

"replacing at least some of said NULL packets with asset packets comprising at least one of bitmaps and control scripts, wherein said navigational information are associated with said content packets to produce a composite transport stream including content packets and asset packets including said navigational information." (emphasis added).

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather, the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 U.S.P.Q. 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 U.S.P.Q. 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The combination of Norizuki and LaJoie fails to teach or suggest the applicants' invention as a whole.

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As discussed above, the Norizuki reference merely discloses an apparatus and method for ATM traffic supervisory control, wherein an idle cell or an administrative cell is used for the traffic control. Specifically, idle cells are inserted into time positions wherein user information cells do not exist on a transmission line. A cell-transmitting unit receives a user information cell sent from an AAL unit 163 and sends the cell to the transmitting switch 177. When a user-information cell sent from the AAL unit does not use all of the total bandwidth of the cell-transmitting unit, the idle cell producing unit produces and sends an idle cell according to the transfer timing provided by the idle cell transferring unit. (See Norizuki, col. 1, lines 12-17, col.8, lines 28-40, and FIGS. 6 and 11). Thus, the traffic information disclosed in Norizuki provides routing information, as opposed to control data and bitmaps to define the layout on a screen and present a means for a viewer to "navigate" through the menus. Nowhere in the Norizuki reference is there any teaching or suggestion of "replacing at least some of said NULL packets with asset packets comprising said navigational information comprising at least one of bitmaps and control scripts, said navigational assets associated with said content packets to produce a composite transport stream including content packets and asset packets having said navigational information." Therefore, the Norizuki reference fails to teach or suggest the applicants' invention as a whole.

Furthermore, LaJole reference fails to bridge the substantial gap as between the Norizuki reference and the applicants' invention. Specifically, the LaJole reference discloses an interactive table gateway that processes the service signals so that they may be transmitted over a cable systems communications network. (See LaJole, col. 12, lines 11-13). However, nowhere in the LaJole reference is there any teaching or suggestion of "replacing at least some of said NULL packets with asset packets comprising said navigational information comprising at least one of bitmaps and control scripts, said navigational assets associated with said content packets to produce a composite transport stream including content packets and asset packets having said navigational information."

Even if the two references could somehow be operably combined (and the applicants submit that they cannot be operably combined) the combination would merely provide an interactive cable gateway for processing multiplex signals so that

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they may be transmitted over a cable systems communication network to multiple set-top terminals, wherein mapping traffic information in an information field of an idle cell is transferred to other communication nodes. Therefore, since the combination of Norizuki and LaJoie fail to teach or suggest "replacing at least some of said NULL packets with asset packets comprising said navigational information comprising at least one of bitmaps and control scripts, said navigational assets associated with said content packets to produce a composite transport stream including content packets and asset packets having said navigational information," the combined references fail to teach or suggest the applicants' invention as a whole.

Moreover, the combination of Norizuki and LaJoie fails to embrace the problem that the applicants' invention solves. In particular, the applicants' invention solves the problem of embedding navigational assets of an electronic program guide within the content (e.g., multimedia content), in order to overcome problems associated with changes to the assets. For example, if a bit-map asset must be changed to provide new graphic data, the content files for all navigational screens using that bit-map need to be re-multiplexed, re-distributed, and reloaded onto all servers. Additionally, the re-multiplexing of the navigation assets in content results in a duplication of navigational assets within each of a plurality of content streams including the date. (See, applicants' specification, page 2, lines 17-24).

By contrast, the combination of Norizuki and LaJoie addresses a problem for solving traffic congestion between the ATM nodes. (See, Norizuki, Abstract and col. 2, lines 26-54). That is, the combined references merely teach providing traffic information for routing packets between nodes. The combined references fail to embrace the properties that the applicants' invention solves. Therefore, the combination of Norizuki and LaJoie fails to teach or suggest the applicants' invention as a whole.

As such, the applicants submit that claim 5 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, claim 17 depends from independent claim 10 and recites similar features thereof. As such, and for at least the same reasons as discussed above, the applicants submit that claim 17 is also not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is

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patentable thereunder. Therefore, the applicants respectfully request that the rejections be withdrawn.

b. Claims 6 and 12-13

Claims 6 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norizuki. Applicants respectfully traverse the rejection.

Claims 6 and 12-13 respectively depend from independent claims 1 and 10 and recite additional features thereof. For example, claim 6 (and similarly claims 12 and 13) recites in part:

"replacing at least some of said NULL packets with asset packets comprising said navigational information comprising at least one of bitmaps and control scripts, said navigational assets associated with said content packets to produce a composite transport stream including content packets and asset packets having said navigational information." (emphasis added).

As discussed above, the Norizuki reference merely discloses an ATM traffic management system that uses idle cells for transferring traffic information to manage a network where traffic information is mapped in an information field of an idle cell and the idle cell is transferred to other communication nodes. The nodes receiving the idle cells then assemble a new idle cell including the traffic information of the received idle cell. (See, Norizuki, Abstract). Therefore, since the Norizuki reference fails to teach or suggest "a transport processor, for replacing at least some of said NULL packets with asset packets comprising said navigational information comprising at least one of bitmaps and control scripts, said navigational assets associated with said content packets to produce a composite transport stream including content packets and asset packets having said navigational information," Norizuki fails to teach the applicants' invention as a whole.

As such, the applicants submit that dependent claim 6 is not obvious and fully satisfies the requirements of the 35 U.S.C. §103 as patentable thereunder. Furthermore, claims 12-13 recite similar limitations as recited as in dependent claim 6. As such, and for at least the same reasons as discussed above, the applicants submit that dependent claims 12-13 are not obvious and fully satisfy requirements of 35

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U.C.S. §103 as patentable thereunder. Therefore, the applicants respectfully request that the rejections be withdrawn.

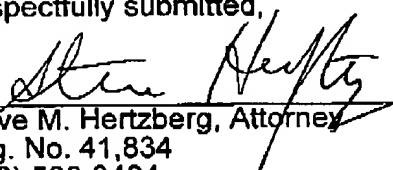
CONCLUSION

Thus, the applicants submit that claims 1-17 are in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Steven M. Hertzberg, Esq. or Eamon J. Wall, Esq. at (732) 530-9404 so appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

1/20/04


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